

REMARKS/ARGUMENTS

Upon entry of the foregoing amendment, claims 1-27 and 33 are pending in the application, with claim 1 being an independent claim. Claims 30-32 and 34-37 were previously withdrawn. Claims 1, 26, 28, 29 and 33 are currently amended. These changes are believed to introduce no new matter, and their entry is respectfully requested. Support for the amendment to the claims can be found, for example, at paragraphs [0014] and [0034]-[0035].

The Examiner has rejected claims 1, 28 and 33 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,882,522 to Naito *et al.* (the "Naito patent"). The Examiner has also rejected claims 1-4, 6-19, 23-24, 26-28 and 33 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,805,074 to Harakawa *et al.* (the "Harakawa patent") in view of U.S. Patent No. 6,136,176 to Wheeler *et al.* (the "Wheeler patent") and U.S. Patent No. 6,852,830 to Groenendaal *et al.* (the "Groenendaal patent"). The Examiner also rejected claims 5-9 under 35 U.S.C. § 103(a) as being unpatentable over the Harakawa patent in view of the Wheeler patent and the Groenendaal patent and further in view of JP 02-218716 to Tanaka *et al.* (the "Tanaka patent"); claims 20-22 under 35 U.S.C. § 103(a) as being unpatentable over the Harakawa patent in view of the Wheeler patent and the Groenendaal patent and further in view of U.S. Patent No. 4,724,053 to Jasne (the "Jasne patent"); and claims 25 and 29 under 35 U.S.C. § 103(a) as being unpatentable over the Harakawa patent in view of the Wheeler patent and the Groenendaal patent and further in view of U.S. Patent No. 4,839,322 to Yodice (the "Yodice patent").

Applicants traverse each of these rejections.

The Naito patent appears to disclose a method for producing a solid electrolytic capacitor wherein an anode is subjected to electrolytic polymerization in

an aqueous solution having a dissolved monomer, such as ethylenedioxythiophene (EDOT), to form an organic semiconductor (cathode) in the form of a polymer, such as polyethylenedioxythiophene. See col. 1, lines 14-16; col. 7, lines 62-66; and col. 8, lines 32-39. There is no disclosure or suggestion in the Naito patent of applying a PEDOT polymer coating to a surface of a cathode foil.

The Harakawa patent appears to disclose a method for manufacturing a solid electrolytic capacitor using a polymer layer of an organic semiconductor, such as thiophene, as a solid electrolyte. See col. 1, lines 6-12. An aluminum foil (anode) has an oxide layer formed thereon and is then dipped into an electrolyte solution containing a heterocyclic monomer, such as thiophene, and the dipped anode undergoes electrochemical polymerization to form a polymer coating on the anode, such as polythiophene. See col. 6, lines 7-21 and col. 9, lines 3-7. The Harakawa patent provides no suggestion or motivation to apply a PEDOT polymer coating to a surface of a cathode foil.

Solid electrolytic capacitors, such as that disclosed in the Naito and Harakawa patents, typically have a polymeric coating formed on the anode, wherein the polymeric coating acts as both the electrolyte and the cathode. Such arrangements do not include a metal cathode foil. The present invention, on the other hand, is directed to a "wet" electrolytic capacitor. "Wet" electrolytic capacitors typically have a metal foil anode and a metal foil cathode, with a separator material in between the foils that is impregnated with an electrically conductive electrolyte. The present invention is directed to a method for coating the surface of the cathode foil in order to increase the surface area of the cathode and thereby increase the cathode capacitance. To further distinguish the present invention over the cited art, claim 1 has been amended to specifically recite "a method for applying a coating to a surface of a cathode foil for use in an electrolytic capacitor comprising an anode foil,

a cathode foil and a separator material therebetween impregnated with an electrically conductive electrolyte."

The Naito patent does not teach each and every element of claim 1 as amended because the Naito patent discloses a PEDOT polymer coating formed on an anode rather than a cathode. Further to the extent the PEDOT polymer coating acts as the cathode in the solid electrolytic capacitor in the Naito patent, such disclosure teaches away from the claimed invention (there is no suggestion in the Naito patent to utilize a separate cathode foil). Accordingly, the Naito patent, whether alone or in combination with any of the other cited references, does not anticipate or render obvious independent claim 1 as amended.

Similarly, the Harakawa patent provides no suggestion or motivation to apply a PEDOT polymer coating to a surface of a cathode foil, as claimed. The Examiner admits that the Harakawa patent does not disclose the use of ethylenedioxythiophene, as claimed. Further, to the extent the polymer coating disclosed in the Harakawa patent acts as the cathode in the solid electrolytic capacitor in the Harakawa patent, such disclosure teaches away from the claimed invention (there is no suggestion in the Harakawa patent to utilize a separate cathode foil). Neither the Wheeler patent, nor the Groenendaal patent, provides motivation or suggestion to modify the disclosure of the Harakawa patent to arrive at the claimed invention. The Wheeler patent appears to disclose applying a PEDOT polymer coating to an anode (see col. 3, lines 50-55) and does not provide any suggestion or motivation to apply a PEDOT polymer coating to a surface of a cathode foil. The Groenendaal patent appears to disclose a process for the electrochemical polymerization of thiophene compounds (see col. 14, lines 27-28) and does not provide any suggestion or motivation to apply a PEDOT polymer coating to a surface of a cathode foil. Accordingly, the Harakawa patent, whether

alone or in combination with any of the other cited references, does not anticipate or render obvious independent claim 1 as amended.

For at least the above reasons, independent claim 1 and claims 2-29 and 33 which depend therefrom, are patentable. Applicants respectfully request that the Examiner reconsider the rejections of these claims and that these rejections be withdrawn.

Conclusion

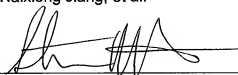
Applicants respectfully submits that the present application is in condition for allowance. If the Examiner believes a telephone conference would expedite or assist in the allowance of the present application, the Examiner is invited to call Stephen M. Mitchell at (408) 522-6101.

Pursuant to 37 C.F.R. 1.136(a)(3), Applicants hereby request and authorizes the U.S. Patent and Trademark Office to (1) treat any concurrent or future reply that requires a petition for extension of time as incorporating a petition for extension of time for the appropriate length of time and (2) charge all required fees, including extension of time fees and fees under 37 C.F.R. 1.16 and 1.17, to Deposit Account No. 22-0265.

Respectfully submitted,

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